

Figure 1



Figure 2

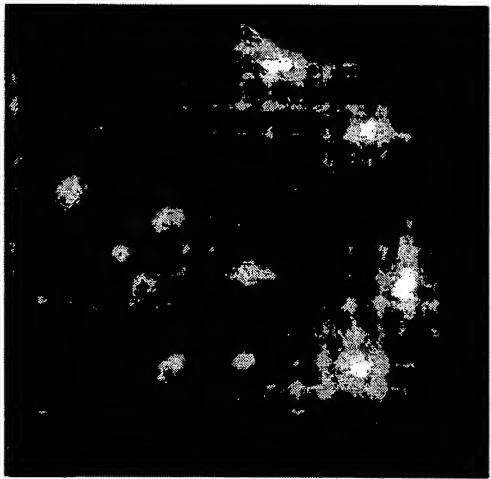
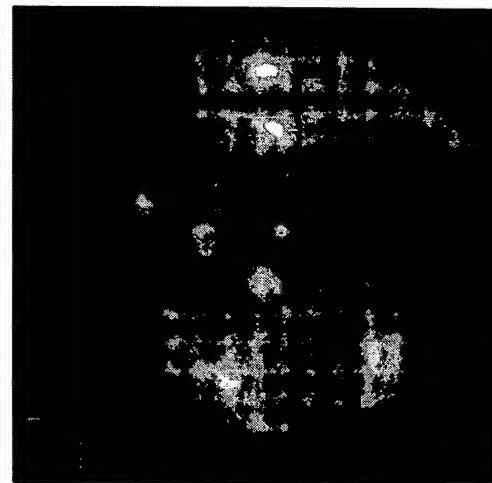


Figure 3



Figure 4



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FIG 5

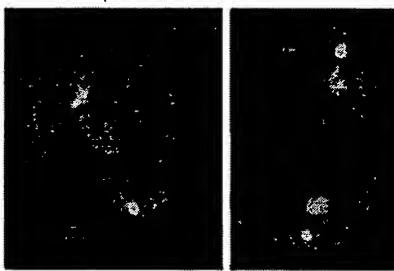


FIG 6



FIG 7



FIG 8

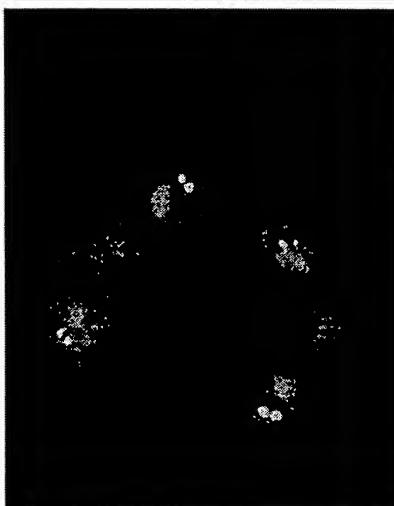


FIG 9

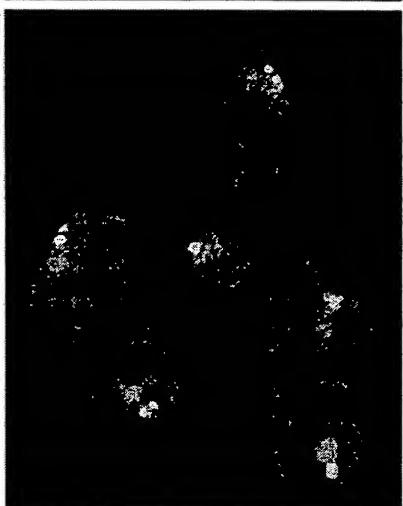


FIG 10



FIG 11



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Figure 12 Figure 13

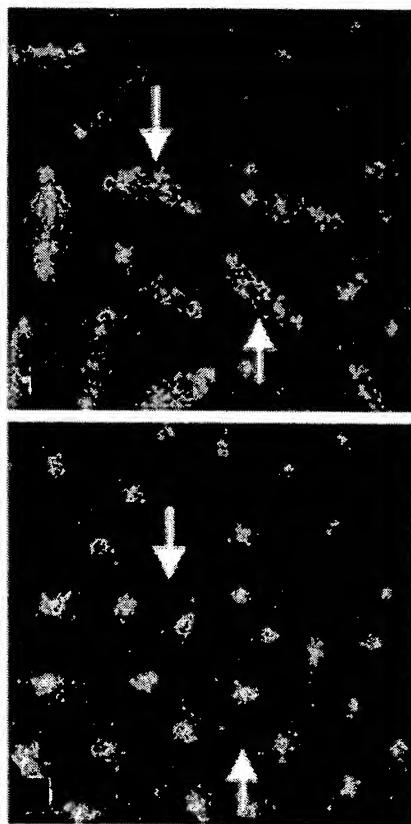
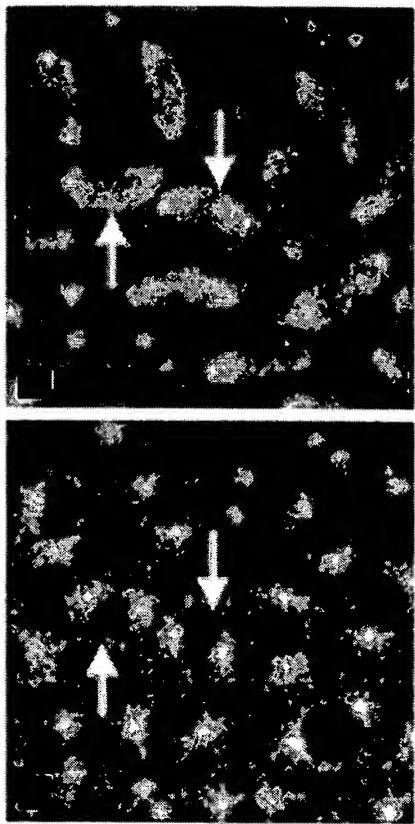
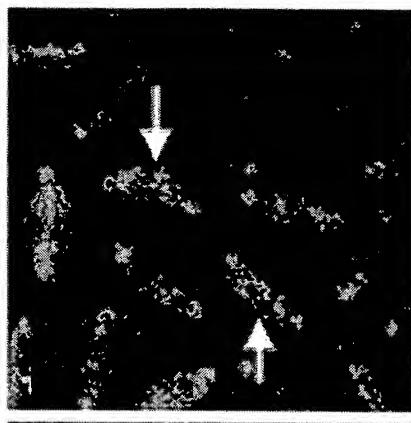
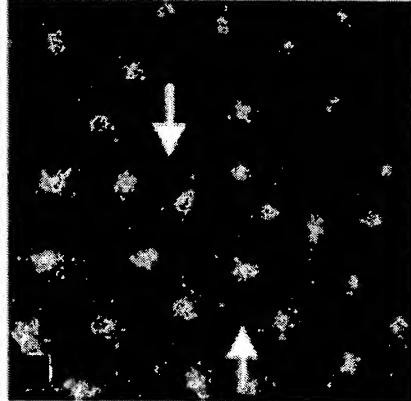


Figure 14 Figure 15



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Figure 16

SEQ ID NO:1 KIF18A cDNA
GenBank Accession No. AL136819

1 atgtctgtca ctgaggaaga cctgtgccac catatgaaag tagtagttcg tgtacgtccg
61 gaaaacacta aagaaaaaagc agctggattt catabagtg ttcatgtgt ggataaact
121 atcctagttt ttgatccaa acaagaagaa gtcagtttt tccatggaaa gaaaactaca
181 aatcaaaaatg ttataaagaa acaaaaataag gatcttaaat ttgtatttga tgctgtttt
241 gatgaaacgt caactcagtc agaagttttt gaacacacta ctaagccaaat tcttcgttagt
301 ttttgaatg gatataattt cacagtactt gcctatggtg ccactgggtc tgggaagacc
361 cacactatgc taggatcagc ttagtgcaccc ggagtgtatgt atctaacaat gttacaccc
421 tacaatgca tggatgagat taaagaagag aaaaatgtt gtaactgcagt ttcatatctg
481 gaggtatata atgaacagat tcgtatctc ttatgtaaattt cagggccact tgctgtccgg
541 gaagatacc aaaaaggggt ggtcgatcat ggacttactt tacaccagcc caaatccca
601 gaagaaattt tacattttt ggataatgga acaaaaaaca ggacacaaca tcccactgt
661 atgaatgcca catcttcg ttctcatgct gtttccaaat ttacttgcg acaacaagac
721 aaaacagcaa gtatcaatca aatgtccgt attgccaaga tgtcactcat tgacctggca
781 ggtatctgagc gagcaagtac ttccgggtc aaggggaccc gatttgtaga aggccacaat
841 attaatagat cacttttagc tcttggaaat gtcatcaatg ccttagcaga ttcaaaagaga
901 aagaatcagc atatccctta cagaaatagt aagcttactc gcttgtaaa ggattcttt
961 ggagggaaact gtcaaactat aatgatagct gctgttagtc cttctctgt attctacgt
1021 gacacatata acactttaa gtatgtaac cgggcaaagg acattaaatc ttcttgaag
1081 agcaatgttc ttaatgtcaa taatcatata actcaatatg taaagatctg taatgagcag
1141 aaggcagaga ttatgtttt aaaaagaaaaa ctaaaagcct atgaagaaca gaaaggcttc
1201 actaatgaaa atgaccaagc aaagttatg atttcaaaacc ctcaggaaaa agaaatcgaa
1261 aggttcaag aaatccctaa ctgctgttc cagaatcgag aagaaattag acaagaatat
1321 ctgaagtgg aatgttact taaagaaaaat gaacttaaat cattctacca acaacagtgc
1381 catabacaaa tagaaatgt gtgtctgaa gacaaatgtg aaaaaggccac tggaaaacgaa
1441 gatcatagac ttgcaatgtt gaaaactcgt cgctccatc tggagaaaaag gagggaggag
1501 gaatgttgc aattgttgc gataactaat tggctccatc gtgtcgaaaa agaaatggga
1561 ctcttaatgc aaaacgttca tattccaaag gaaactcaaga aagatctca ttgtcacccat
1621 ttgcaccccttcc agaacaaga tttgaaagca caaatttagac atatgttgc tcttagtttgc
1681 ctccaggaac agcaacacag gcagactgaa gcagtttgc atgctttact tccaaacccttca
1741 agaaaacaat attgcacattt aaaaagaaagcc ggcctgtcaa atgctgtttt tgaatctgac
1801 ttcaaaagaga tcgaacattt ggttagagagg aaaaaatgtt tagttggc tgacccaaact
1861 ggcgaacaac caaagcaaaa cgatctacca gggatttgc ttcttgc tttccacca
1921 ctggaccag ttccatc tccctttgc tcatttcgtt gttttttttt tttttttttt
1981 attccatc aaaaagaaac tcggagaaaaa ctaatgcccattt ctcccttgc aaggacacat
2041 actctaaatgc ctccaccatc tcaaaatgtt cagctcaatg attcttttttgc caaagaaactt
2101 cagcctatgc tatatacacc agaagactgt agaaaatgtt ttcaaaatcc gtctacatgt
2161 accttaatgc aaccatcatc atttactaca agtttcagg ctatcgttc aaacataaaac
2221 agtataattt gtcgtttttt gttttttttt tttttttttt tttttttttt
2281 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2341 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2401 gatccttctt catttcacac taagcattttt atgcgttgc caagcatggt ggcacccatc

2461 atggcaatga ctactgctgc caaaaaggaaa cgggaaattaa caagttctac atcaaacagt
2521 tcgttaactg cagacgtaaa ttctggattt gccaaacgtg ttgcacaaga taattcaagt
2581 gagaagcact tacaagaaaa caaaccaaca atggaacata aaagaaacat ctgtaaaata
2641 aatccaagca tggtagaaa attttgaaga aatattcaa aaggaaatct aagataa

Figure 17

SEQ ID NO:2 Amino acid sequence of KIF18A

GenBank Accession No. AL136819

MSVTEEDLCHHMKVVVRPENTKEKAAGFHKKVHVVDKHLVFDPKQEEVSF
FHGKKTTQNVIKKQNKDLKFVDAVFDETSTQSEVFEHTKPILRNFLNGYNCT
VLAYGATGAGKTHMLGSADEPGVMYLTMLHLYKCMDEIKEEKICSTAVSYLE
VYNEQIRDLLVNSGPLAVREDTQKGVVVHGLTLHQPKSSEEILHLLDNGNKNRT
QHPTDMNATSSRSHAVFQIYLRLQQDKTASINQNVRIAKMSLIDLAGSERASTSGA
KGTRFVEGTNNRSSLALGNVINALADSKRKNQHIPYRNSKLTRLLKDSLGGNCQ
TIMIAAVSPSSVFYDDTYNTLKYANRAKDIKSSLKSNVNVNNHITQYVKICNEQ
KAEILLLKEKLKAYEEQKAFTNENDQAKLMISNPQEKEIERFQEILNCLFQNREEI
RQEYLKLEMLLKENELKSFYQQQCHKQIEMMCSEDKVEKATGKRDHRLAMLKT
RRSYLEKRREEELKQFDENTWLHRVEKEMGLLSQNGHIPKELKKDLHCHHLH
QNKDLKAQIRHMMMDLACLQEQQHRQTEAVLNALLPTLRKQYCTLKEAGLSNAA
FESDFKEIEHLVERKVVVWADQTAEQPKQNDLPGISVLMTPQLGPVQPIPCCS
SSGGTNLVKIPTEKTRRKLMPsplKGQHTLKSPPSQSVQLNDSLSKELQPIVYTP
EDCRKAFQNPSTVTLMKPSSFTTSFQAISNINSNDNCLKMLCEVAIPHNRRECGQ
EDLDSTFTICEDIKSSKCKLPEQESLPNDNKDILQRLDPSSFSTKHSMPVPSMVPSY
MAMTTAAKRKRKLTSSNTSNSSLTADVNSGFAKVRQDNSEKHLQENKPTMEH
KRNICKINPSMVRKFGRNISKGNLR

Figure 18

SEQ ID NO:3 Amino acid sequence of KLP67A
GenBank Accession No. NM_079268

MPSEQHTNIKAVRVRPVNVRELEQKQRSIIKVMDRSALLFDPDEEDDEFFQGA
KQPYRDIRKRMNKKLTMEFDRVFDIDNSNQDLFEECTAPLVDAVLNGYNCSVFV
YGATGAGKTFMLGSEAHPGLYLTMQDLFDKIQAQSDVRKFDVGVSYLEVYN
EHVMNLLTKSGPLKLREDNNGVVVSGLCLTPYSAEELLRMLMLGNSHRTQHPT
DANAESSRSHAIFQVHIRITERKTDTKRTVKLSMIDLGSERAASTKGIGVRFKEG
ASINKSLLALGNCINKLADGLKHIPYRDSNLTRILKDSLGGNCRTLMVANVSMSS
LTYEDTYNTLKYASRAKKIRTTLQCNVLKSKMPTEFYVKKIDEVVAENERLKER
NKALEAKATQLERAGNSGFDPLELKWTYSKIDAVYAAARQLQEHLGMRSKIK
NINYRQLTKKELEEFRKLMCVDQRVCQEDFRRFANYMSTLTSQMEKYKEELPS
WLSKMEIAYQDLESLKREVNKSAYQILIVVKYKDLELQLTKQNIFNNHVNAI
NQELVENLDLMRKSFRTACEVLNQTYDRLEDGQKLTPEIEAVFERLLRKMRFAD
SEANTKMAEMNPLAVPVALRSSAQEEEETCSLTASAKKRQRQAAQSDDDLHLS
MEDFDSQDTESDSEELHRTFKRPRNLNETQVLGPCSSSSSTSSSSSARKALTAT
VTKPRTVQQRLVSDLISDQNVRGGNEKIKKALLKSNHFTAQGLQRTLAAASLAK
ENVKYNANYVRKSPRALMAKALAGTSTLARKPLGSASKEPPLVKFNRAASFRLK
K

Figure 19

SEQ ID NO:4 cDNA of KLP67A
GenBank Accession No. NM_079268

1 atgccttcgg aacagcatac gaatataaaaa gtggcggttc gcgtacggcc gtataatgtc
61 cgtgaattgg agcaaaaaca gcggaggattt atcaagggtca tggatcggtc ggcactgctg
121 ttcatcccg acgaggagga cgtatcgatcc ttcttcagg ggcggcaagca accgtaccgc
181 gacatcacca agcggatgaa caaaaagttt accatggat tcgacagggtt attcgatata
241 gacaattcca accaggatct gttcgaggag tgcacggcgc cgctggtcga cgccgtgtta
301 aatggataca actgctcggt atttgatataa ggagccactg ggcgggaaa aacattcaca
361 atgctggca gcgaggctca tccgggtctg acctatctt ccattgcaga tctcttcgtat
421 aagatccaag cgcagagcga cgtgcgcaag ttcatgtgg gggtatccat tctagagggtg
481 tacaacgaac atgtatgaa tctgcataact aaatcgccgc cttaaaact tcgcgaggac
541 aacaatggcg tgggtgtcag tggctttgt ctacgcggca tctacagtgc cgaggagctg
601 ctaagaatgc tcatgtctgg caactctcat cgcactcagc accccacaga tgccatgc
661 gagagttcca ggtcacatgc catctccag gtgcacatggatc ggcggccaa gaggccggcc
721 gacaccaaaa gaacggtcaa actatccatg atcgatctgg cggcagtgaa gaggccggcc
781 agtacgaaag gcattggagt gcgattcaag gaaggccgc gcatcaacaa aagtcttta
841 gctttggaa attgcataaa caagctagcc gacggcttaa agcacaatccc gtaccgcac
901 tcgaacctga cacgcattctt gaaggactcg ttggccggaa attgtcgac attgtggtg
961 gccaatgtct cgtatgagctc actgacatctt gaagataacct acaacaccct taagtacgct
1021 agccgagctt agaagatacg cacgactctg aaacagaatgt tcctcaagtc caagatgc
1081 accgagttctt atgtatgaa gatcgacgatg gtggtagccg agaacgagcg actcaaagag
1141 cgcaacaagg cgctggaggc caaggccactt cagttggagc ggcggccaa tagtggattt
1201 gatccgctgg agcttaagac gtggtagccg aagatagacg ctgtatatgc ggcggccgg
1261 cagcttcagg agcacgtcctt tggatgcgtt agcaagatca agaacatcaa ctaccggcag
1321 acactgaaaaa aagaactgga ggagttcagg aagctgtatgt gtgtcgacca gcgagtgtc
1381 caggaggactt ccgtcgctt tgcgaactac atgaggcacac tgaccagcc gatggagaag
1441 tacaaggagg agttggccctt ctggctgatgaaaatggaga ttgcctacca ggatctgaa
1501 agtctaaagc gagaggtaa caaatcaaaag gcctaccaga tactcattgtt atacgttaag
1561 tacaaggatc tcgagctgca gctgaccaag cagaatatctt ttaacaatca cgtgaacgc
1621 attaaccagg agctgggttga gaacttggat ctgtatgcgaa agtccctccg aacagctgc
1681 gaagtgcata accagacgtt cgtatgcctt gaggatggc aaaagctgac gcccggaaatt
1741 gaggccgtt tcgaaaggatg gctgcaaaatgc atgcgggttc ccgattccgaa ggccaaatacc
1801 aaaatggccg agataatcc ttggccgtt cctgtggctt tgcgcagcag cgcggccaggag
1861 gaagaagagc ccacatgcag cctcacggcc agcgccaaaaa agcgacaaag gcaagccggct
1921 cagagcgacg acgatctgca tttagcatg gaggactttt atagccagga caccgaatca
1981 gattccgagg agtgcacag gacgttaag aggccacgaa atctaaacga aacgcaggct
2041 ctgggtccctt gcagcagtag ttcttagcagc agtacttcta gcagcagtag cgcaggaaag
2101 gcactcacgg cgacgggttgc caagccgcga accgtccaaac agcgactggt cagcgatctg
2161 atatccgatc agaatgtgcg cggatggcaat gaaaatgtca agaaggctctt actcaagtc
2221 aatcacttta cggcgcaagg acttcagaga acgttggccg ctgcgttc ggcggaa
2281 aacgtaaaaat acaacgccaat cttatgtgcgc aagagtccac gagcgtat ggcggcc
2341 cttgcaggca cctcgacgctt tgcgagaaaaa ccgctggat cggccagttaa ggagccggct
2401 ttggtcaat tcaatgtgc tgcgttc cgcctgaaga agtag

Figure 20

KLP61F dsRNA (SEQ ID NO:13)

```
gacgggcaca ggaaagaccc acaccatggt gggcaacgag actgccgaac
tgaatccctc ctggaaagat gactctgaca ttggcatcat accgcgcgcct ctgagtcacc
tttcgatga gctgcgcatg atggaggtgg agtacactat gcgcatttcc tacttggAAC
tgtacaatga ggagctgtgc gatctactgt ccaccgatga caccaccaag atacgcattt
tcgatgacag caccaagaag ggatcggta ttatccaggg cctggaggag ataccagtgc
acagcaagga tgatgtgtac aagctgtgg agaaggaaaa ggagcgtcgc aaaacagcca
ctacgctgtat gaatgcacag tcctcacgtt cccacactgt attttctata gttgtgcaca
tcagggagaa tggcatcgaag ggagaggaca tgctgaaaat cggtaactg aatctgggtgg
atctggcggtt cagtgaaaat gttccaagg ctggaaatga aaaggaa
```

Figure 21

KLP67A dsRNA (SEQ ID NO:14)

gtacggc cgtataatgt ccgtgaattg gagcaaaaac agcggagtt
tatcaaggc atggatcggtt cggcactgct gttcgatccc gacgaggagg acgatgagtt
cttccttcag ggcgccaagc aaccgttaccg cgacatcacc aagcggatga acaaaaagtt
gaccatggaa ttgcacaggg tattcgatat agacaattcc aaccaggatc tgttcgagga
gtgcacggcg ccgcgtggcg acgcgggttt aaatggatac aactgctcgg tatttgata
tggagccact ggcgcccggaa aaacattcac aatgcgtggc agcgaggctc atccgggtct
gacctatctt accatgcaag atctcttcga taagatccaa gcgcagagcg acgtgcgcaa
gttcgatgtg ggggtatcct atctagaggt gtacaacgaa catgtgtatga atctgctaac
taaatcgggc cctttaaaac ttgcgagga caacaatggc gtgggtggtca gtgg